

1 **(BSP September 27, 2004)**

2 **Spherical Bearing**

3 Unless other materials are specified in the Plans, spherical bearing assembly
4 components shall conform to the following requirements for those components shown
5 and specified in the Plans:
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7 **Steel Plates and Bars**

8 Steel plates and bars (base plates, bearing plates, guide bars, keeper bars and
9 plates, masonry plates, and sole plates) shall conform to ASTM A 36, and the
10 dimensions shall comply with the details as shown in the Plans. The surface of the
11 steel plates and bars in contact with stainless steel shall have an average surface
12 roughness of 125 microinches or less. The surface within the recess of steel plates
13 and bars retaining PTFE shall have an average surface roughness of 250
14 microinches or less. All other steel plate and bar surfaces in contact with other
15 spherical bearing assembly components shall have an average surface roughness
16 of 500 microinches or less.
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18 **Polytetrafluoroethylene (PTFE)**

19 PTFE shall be 100 percent virgin PTFE, woven PTFE fabric, or dimpled PTFE
20 conforming to Section 18.8.2 of the AASHTO LRFD Bridge Construction
21 Specifications, 1st Edition and latest interims.
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23 **Stainless Steel**

24 Stainless steel sheet shall conform to ASTM A 240 Type 304L. Stainless steel in
25 contact with PTFE shall be polished to a Number 8 mirror finish.
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27 Stainless steel countersunk screws shall be hexagon socket type conforming to
28 ANSI B 18.3 and shall conform to ASTM F 593 Type 304L.
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30 **Silicone Grease**

31 Silicone grease shall conform to Military Specification MIL-S-8660.
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33 **Bolts, Nuts and Washers**

34 Bolts, nuts and washers shall conform to Section 9-06.5(3).
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36 **Anchor Bolt Assembly**

37 Anchor bolts shall conform to ASTM F 1554 Grade 105, including supplemental
38 requirements S2, S3, and S5. Nuts shall conform to AASHTO M 291 Grade DH.
39 Washers shall conform to AASHTO M 293. Bars shall conform to ASTM A 36.
40 Pipe shall conform to ASTM A 53 Grade B Type E or S, black.
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42 **Resin Filler**

43 Resin filler shall conform to Section 6-02.2 as supplemented in these Special
44 Provisions.
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46 **Submittals of Acceptance Test Reports and Certificates**

47 The Contractor shall submit the following production samples, and test reports and
48 certificates, to the Engineer for review, testing, and approval:
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- 50 1. Manufacturer's certificate of compliance for the PTFE, resin filler, and
51 silicone grease, in accordance with Section 1-06.3.
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2. A two inch by three inch by 1/8 inch sample of PTFE taken from the lot of production material.
3. Certified mill test reports for all steel and stainless steel materials incorporated in the bearings.

The Contractor shall not ship the bearings from the fabricator's facility until receiving the Engineer's written approval of all production samples, and test reports and certificates.